Permit #:	



**ROY COOPER •** Governor

KODY H. KINSLEY • Secretary

MARK BENTON • Deputy Secretary for Health

**SUSAN KANSAGRA** • Assistant Secretary for Public Health

Division of Public Health

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)
'ounty.
County:
PIN/Lot Identifier:
ssued To:
Property Location:
subdivision (if applicable) Lot #: Block: Section:
SS Report Provided: Yes No No
f yes, name and license number of LSS:
New
Proposed Structure:
Number of bedrooms: Number of Occupants: Other:
Design Wastewater Strength:  domestic  high strength  industrial process
Proposed Design Daily Flow: GPD Proposed LTAR (Initial): Proposed LTAR (Repair):
Proposed Wastewater System Type*:(Initial) Pump Required: 🗌 Yes 🗍 No 🗍 May be required
Proposed Wastewater System Type*: (Repair) Pump Required: 🗌 Yes 🗍 No 🗎 May be required
Please include system classification for proposed wastewater system types in accordance with 15A NCAC 18A .1961 Table V(a)
aprolite System (initial):  Yes No Saprolite System (repair): Yes No
ill System (Initial): 🗌 Yes 🔲 No If yes, specify: 🔲 New 🔲 Existing (when adding more than 6 inches of fill to system area provide a fill plan)
ill System (repair): 🗌 Yes 🔲 No If yes, specify: 🔲 New 🔝 Existing (when adding more than 6 inches of fill to system area provide a fill plan)
Jsable Soil Depth (Initial): Usable Soil Depth (Repair):
Max. Trench Depth (Initial) <sup>‡</sup> : Max. Trench Depth (Repair) <sup>‡</sup> : <sup>‡</sup> Measured on the downhill side of the trench
Artificial Drainage Required: Yes No If yes, please specify details:
ype of Water Supply: Private well Public well Shared well Municipal Supply Spring Other:
Orainfield location meets requirements of Rule .1945: Yes 🔲 No 🔲 Drainfield location meets requirements of Rule .1950: Yes 🔲 No 🗍
Permit valid for: 🗌 Five years [site plan submitted pursuant to GS 130A-334(13a)] 🔲 No expiration [plat submitted pursuant to GS 130A-334(7a)
Permit conditions:
icensed Soil Scientist Print Name:

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

\*See attached site sketch\*

#### NC DEPARTMENT OF HEALTH AND HUMAN SERVICES • DIVISION OF PUBLIC HEALTH



Permit #:
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## This Section for Local Health Department Use Only

Initial subn	nittal received:		by		
		Date	Initials	5	
G.S. 130A-335(a3) states the following:					
When an applicant for an Improvement Permit submits to department, the common form developed by the Departm within five business days of receiving the application, condepermit includes all of the required components. If the local shall notify the applicant of the components needed to condepartment to cure the deficiencies in the Improvement Persis complete within five business days after the local health act within any period set out in this subsection, the applications form for use as the Improvement Permit.	ent, and a soil evaluati duct a completeness rev I health department de mplete the Improvemer ermit. The local health o department receives ti	on pursuant to su view of the submit termines that the nt Permit. The app department shall he additional info	bsection (a2) of thi tal. A determinatic Improvement Pern Ilicant may submit make a final detern rmation from the a	is section, the local hea on of completeness me nit is incomplete, the lo additional information mination as to whether applicant. If the local he	Ith department shall, ans that the Improvement cal health department to the local health the Improvement Permit ealth department fails to
The review for completeness of this Improvem Permit is determined to be:	ient Permit was co	onducted in ac	cordance with (	G.S. 130A-335(a3)	. This Improvement
☐ Incomplete (If box is checked, information	ı in this section is r	equired.)			
The following items are missing:					
Copies of this were sent to the LSS and the Ap		Date			
State Authorized Agent:				Date:	
☐ Complete	3//0			121	
State Authorized Agent:				Date:	
This Improvement Permit is issued pursuant to attached here. The issuance of this permit by permit holder is responsible for checking with to revocation if the site plan, plat, or the interownership of the site. This permit is subject to Disposal and to the conditions of this permit.	y the Health Depar n appropriate gove nded use changes. to compliance witl	rtment in no we erning bodies . The Improve	ay guarantees in meeting the ement Permit s	the issuance of o ir requirements. T shall not be affecte	ther permits. The his permit is subject ed by a change in
The Department, the Department's authorize any liabilities, duties, and responsibilities imp evaluations, submittals, or actions from a lice	osed by statute o	r in common l	aw from any cl	laim arising out of	or attributed to
Improvement Permit Expiration Date:					

\*See attached site sketch\*



Permit #:	
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## **Re-submittal of Improvement Permit**

Г				$\neg$
	LHD USE ONLY: This IP resubmittal received:		by	
		Date	Initials	
The following it	ems are being resubmitted pursuant to G.S. 130A-335(	(a3) for issuance	of the Improvement Permit:	
	STA	The	A.	
	A THE SH	THE OF		
is accurate and o	hereby attest that cientist (Print Name) complete to the best of my knowledge and that the prolams, regulations, rules, and ordinances.		required to be included with ement Permit meets all appli	
Signature	e of Licensed Soil Scientist		Date	
	The section below is for Local Health Department use o	after submittal of	items noted as missing above.	
LHD Follow-u	p Completeness Review of Improvement Pe	ermit		
	ompleteness of this Improvement Permit re-submitta ermit is determined to be:	l was conducted	in accordance with G.S. 130	A-335(a3). This
☐ Incomplete	(If box is checked, information in this section is requir	red.)		
The following ite	ems are missing:			
	The second	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
Copies of this we	ere sent to the LSS and the Applicant on			
State Authorized	d Agent:		Date:	
☐ Complete				
State Authorized	d Agent:		Date:	



Permit #:	
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### **CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)**

County:
PIN/Lot Identifier:
issued To:
Property Location:
AOWE/PE Plans/Evaluations Provided: Yes 🔲 No 🔲 If yes, name and license number of AOWE/PE:
Facility Type:
New Expansion Repair System Relocation Change of Use
Basement? Yes No Basement Fixtures? Yes No
Type of Wastewater System*(Initial)(Repa
*Please include system classification for proposed wastewater system types in accordance with 15A NCAC 18A .1961 Table V(a)
Design Daily Flow: GPD Wastewater Strength: _ domestic _ high strength _ industrial process
Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies?
Installation Requirements/Conditions
Septic Tank Size: gallons Total Trench/Bed Length: feet Trench/Bed Spacing: feet on center
Trench/Bed Width: inches LTAR: gpd/ft <sup>2</sup>
Soil Cover: inches Slope Corrected Maximum Trench/Bed Depth <sup>‡</sup> : inches * Measured on the downhill side of the trench
Aggregate Depth:inches above pipeinches below pipeinches total
Pump Tank Size (if applicable): gallons Requires more than 1 pump? 🔲 Yes 🔲 No
Pump Requirements: ft. TDH vs GPM Grease Trap Size (if applicable): gallons
Distribution Method: Serial D-Box or Parallel Pressure Manifold(s) LPP Other:
Artificial Drainage Required: Yes 🔲 No 🔲 If yes, please specify details:
Legal Agreements (If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)
Multi-party Agreement Required [.1937(h)]: 🔲 Yes 🔲 No
Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: 🔲 Yes 🔲 No
Declaration of Restrictive Covenants: Yes No
Pre-Construction Conference Required: Yes No No
Conditions:
The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference
into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.
AOWE/PE Print Name: Expiration Date:
AOWE/PE Signature: New Moore Date:

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

\*See attached site sketch\*



Permit #:
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## This Section for Local Health Department Use Only

	Initial submittal received:	by	
		Date	Initials
G.S. 130A-335(a5) states the follo	_		
mprovement Permit and Construction All Department, and any necessary signed and any necessary signed and angineer or a person certified pursuant to department shall, within five business dath the Construction Authorization or Improvements needed to conditional information to the local health Authorization. The local health department fails to act within any period apply for the building permit for the project of the engineer submitting the evaluation or Improvement Permit and the local health department, and the local health department and the local health department, and the local health department shall health shal	uthorization application together, the pend sealed plans or evaluations conducted of Article 5 of Chapter 90A of the General ys of receiving the application, conduct a green the Permit and Construction Authorizization or Improvement Permit and Construction or Improvement Permit and Construction or Improvement Permit and Construction Authorization of the Construction Authorization of the Sall make a final determination as to interest and the subsection, the applicant less done in this subsection, the applicant feet upon the decision of completeness of the porture of the local health department fair in pursuant to this subsection may requited the construction Authorization for cause. Let	rmit fee charged by the lood by a person licensed purson licensed purson licensed purson licensed purson licensed purson licensed purson licensed l	ntion together, submits a Construction Authorization, or an cal health department, the common form developed by the suant to Chapter 89C of the General Statutes as a licensed of On-Site Wastewater Evaluator, the local health the submittal. A determination of completeness means that required components. If the local health department the complete, the local health department shall notify the add Construction Authorization. The applicant may submit toon or Improvement Permit and Construction on Authorization or Improvement Permit and Construction and information from the applicant. If the local health that as a determination of completeness. The applicant may ration or Improvement Permit and Construction ass days. The Authorized On-Site Wastewater Evaluator or repartment revoke or suspend the Construction as Authorized On-Site Wastewater Evaluator or licensed and Construction Authorization pursuant to G.S.
The review for completeness of t	this Construction Authorization v	was conducted in acc	ordance with G.S. 130A-335(a5). This
Construction Authorization is de	termined to be:		
☐ Incomplete (If box is checked	d, information in this section is re	equired.)	
The following items are missing:			
Copies of this were sent to the A	OWE/PE and the Applicant on _	Date	W 76 //
State Authorized Agent:			Date:
Complete	1 Comment		15/8
State Authorized Agent:	J. PRIL	12 1776	Date of Issuance:
attached here. This Construction Construction Authorization shall to compliance with the provision of the Department, the Department in liabilities, duties, and respondans, evaluations, preconstruct the General Statutes as a license Authorized On-Site Wastewater agents, and the local health dep	n Authorization is subject to rev I not be affected by a change in ns of the Laws and Rules for Sev nt's authorized agents, and the nsibilities imposed by statute or cion conference findings, submit ed engineer or a person certified Evaluator in GS 130A-335(a2), (	ocation if the site plan ownership of the site wage Treatment and local health department in common law from tals, or actions from a pursuant to Article (a5), and (a7). The Dend bear liability for the	ing the signed and sealed plans or evaluations an, plat, or the intended use changes. The ite. This Construction Authorization is subject Disposal and to the conditions of this permit.  The entry shall be discharged and released from many claim arising out of or attributed to a person licensed pursuant to Chapter 89C of 5 of Chapter 90A of the General Statutes as an epartment, the Department's authorized their actions and evaluations and other pursuant to GS 130A-337.
Construction Authorization Expi	ration Date:		
·		<u></u>	
	dia .		

\*See attached site sketch\*



Permit #:	
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### **Re-submittal of Construction Authorization**

	THD LISE ONLY:	This CA resubmittal received:		by		
	LIND OSE ONET.	Tills CA resubilittal received	Date	by	als	
The following i	tems are being resul	omitted pursuant to G.S. 130A-33	35(a5) for issuance of	of the Construction	n Authorization:	
1		harahy attact the	at the information r	roquired to be incl	udad with this r	o submittal
is accurate and			at the information r			
Signatur	re of Authorized On-Site \	Nastewater Evaluator		Date	T)	
LHD Follow-ւ		w is for Local Health Department us  s Review of Construction A		tems noted as missi	ng above.	
	completeness of thi on Authorization is o	s Construction Authorization re-s determined to be:	submittal was cond	ucted in accordan	ce with G.S. 130	A-335(a5).
☐ Incomplete	(If box is checked, ir	formation in this section is requi	ired.)			
The following it	ems are missing:					
		IANO 302 MIL	M VIDER	19		
Copies of this w	vere sent to the AOV	VE/PE and the Applicant on	Date	-		
State Authorize	ed Agent:			Date: _		
Complete						
State Authorize	ed Agent:			Date: _		

6

### Adams Soil Consulting, PLLC 1676 Mitchell Road Angier, NC 27501 919-414-6761

alexadams@bcsoil.com

February 29, 2024 Project #1215

"The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3)."

"The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335 (a2), (a5), and (a6)"

"This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5)."

RE: Tobacco Road Subdivision: Lot #61-15 Grading Stick Ct. - Angier, NC (Harnett County) for Drees Homes

To whom it may concern:

Adams Soil Consulting (ASC) conducted a preliminary soil evaluation on the above referenced parcel to determine the areas of soils which are suitable for subsurface wastewater disposal systems (conventional & LPP). The soil/site evaluation was performed using hand auger borings during moist soil conditions based on the criteria found in the State Subsurface Rules, 15ANCAC 18E. From this evaluation, ASC is providing the attached 600 gallon/day septic design.

The suitable soils found on the subject property were relatively consistent in the initial and repair areas. The area designated for the initial/primary septic system (see attached septic plan) was found to contain soils with greater than 24 inches in depth before a restrictive horizon was encountered.

Please find the attached wastewater soil/site evaluation forms for specific soil properties found in the initial and repair areas as well as assigned soil long term acceptance rate (LTAR). Numerous soil borings were made throughout the property and representative soil profile descriptions for the primary septic field and repair area are provided. A location sketch for profile descriptions is also attached. The initial and primary septic fields were sized based on a flow rate of 600 gallons/day and utilizing Accepted Status. Any unauthorized site disturbance, filling, soil removal, or layout changes may result in the permit being revoked.

The septic installer contractor shall install the primary and repair (if needed) system on contour, see attached site plan for the primary system and repair

locations. No underground utilities, water lines, or sprinkler systems shall be placed into the initial or repair septic areas. Installation must meet all state and Harnett County regulations for septic system installation. The trenches must be installed in the same location as the site plan. If the installation is in question at the time of installation call me (Alex Adams) at 919-414-6761.

This report discusses the location of provisionally suitable soils identified on the property and does not guarantee the future function of any waste water disposal system installed.

If you have any questions regarding the findings on the attached map or in this report, please feel free to contact me anytime.

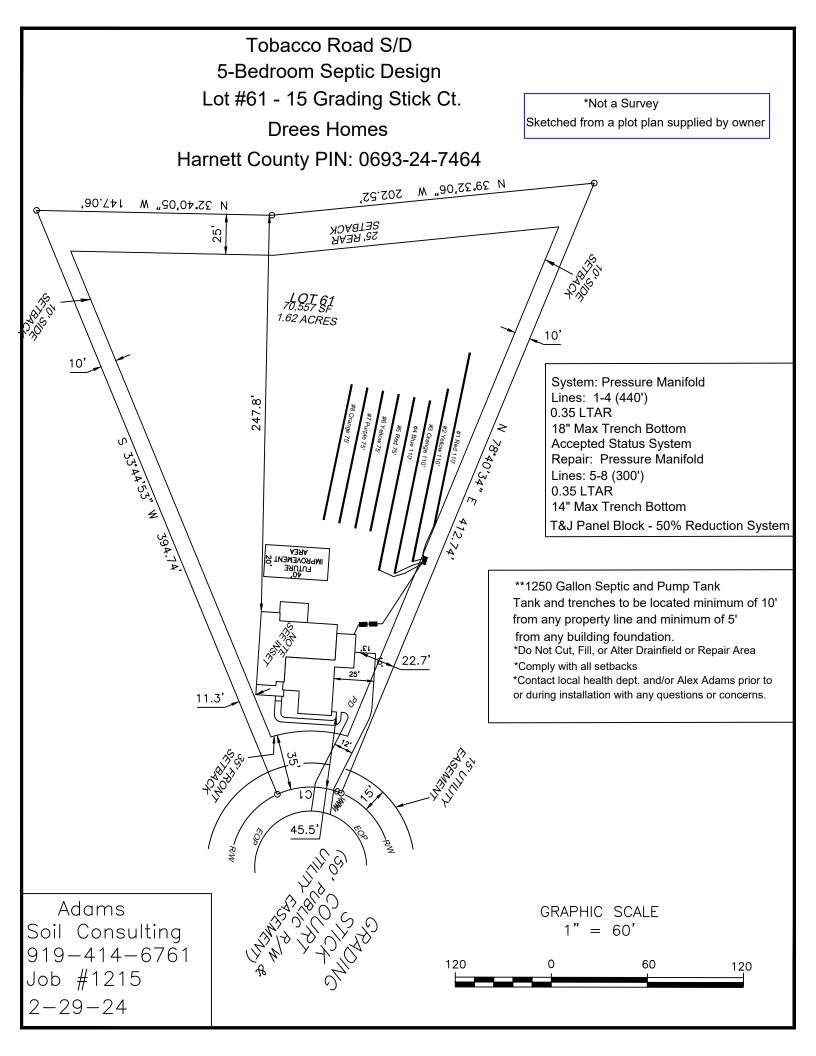
Sincerely,

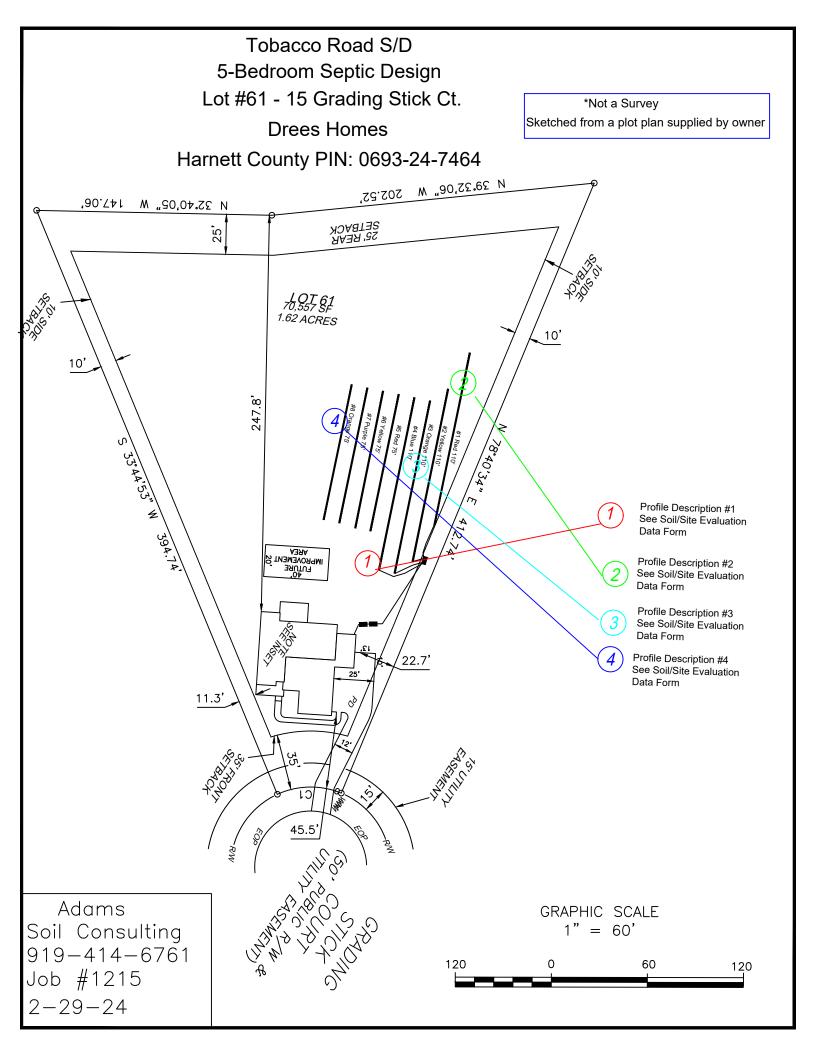
Alex Adams

NC Licensed Soil Scientist #1247 AOWE Certification: 10021E









#### PRESSURE MANIFOLD DESIGN

Name: Drees Homes P.I.N. #: D#:

Address: 15 Grading Stick Ct. Subdiv: Tobacco Road Lot#: 61

# of BDR:  $\underline{5}$  Daily Flow:  $\underline{600}$  gal/day L.T.A.R.:  $\underline{0.40}$  gal/day/sq.ft

Septic Tank: 1250 gals Pump Tank: 1250 gals Sq. Foot: 1320 Stone Depth:

Number of Taps:  $\underline{4}$  Length of Trenches:  $\underline{440}$  ft(See Tap Chart for Details)

Depth of Trenches: 18 in Manifold Length: 42 in

Manifold Diameter: 4in sch 80pvc Tap Configuration: 6 in spacing side(s) of manifold

Supply Line: length:  $\underline{70}$  ft Diameter:  $\underline{2}$  in sch 40pvc

Friction Loss + Fitting Loss: 2.65 ft(supply line length + 70' for fittings in pump tank)

Design Head:  $\underline{2}$  ft Elevation Head:  $\underline{8.00}$  ft

Total Head: 12.65 ft Pump to Deliver: 28.44 gals/min at 12.65 ft head

Dosing Volume: <u>215</u> gals,

Drawdown: 215 gals divided by  $\underline{20}$  gals/in =  $\underline{10.7}$  inches

Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter,

or equal is required.

Possible pumps: Hydromatic: Goulds: Myers:

Zoeller: Model 151 Other:

### **TAP CHART**

				•					
Bench Mark	0	is = 100.00	set at EIP				Design Head:	2	
Pump tank elev.		7	93.00	Pump elev.	88.00		Manifold elev.	96.00	
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
1	Red	5.0	95.00	110	1/2in SCH 40	7.11	150.00	330	0.455
2	Yellow	5.3	94.70	110	1/2in SCH 40	7.11	150.00	330	0.455
3	Orange	5.6	94.40	110	1/2in SCH 40	7.11	150.00	330	0.455
4	Blue	6.0	94.00	110	1/2in SCH 40	7.11	150.00	330	0.455
		pl	feet =	440	gal/min =	28.44		LTAR =	0.35
% of Dose Vol.		75		Des. Flow	600			(Itar + 5%)	0.37
<b>Dose Volume</b>		215		Pump Run=	21.10			(Itar W/ INOV)	0.47
Dose Pump Tim	е	7.54		Tank Gal/IN	20			(Itar + 5%)	0.49
Drawdown in In	ches	10.7		Elev. Head	8.00				
Supply Line Length		70							
Comments:									

#### **Hydraulic Profile**

Manifold Elevation	96.00	70
Pump tank elev.	93.00	2
Pump elev.	88.00	0

# SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

(Complete all fields in full)

OWNER: Drees Homes

APPLICATION DATE:

ADDRESS: Tobacco Road Lot #61- 15 Grading Stick Ct - Angier, NC

DATE EVALUATED: 2-29-24

PROPOSED FACILITY: Single Family, 5-bedroom PROPOSED DESIGN FLOW (.1949): 600gpd

PROPERTY SIZE: ~0.89 acres

LOCATION OF SITE: Tobacco Road Lot #61- 15 Grading Stick Ct – Angier, NC

WATER SUPPLY: Public Water

EVALUATION METHOD: Auger Boring TYPE OF WASTEWATER: Sewage

	LUATION METH	iob. mager	Boring	111	E OF WASTE	WITTER.	Sewage		
P R O F I L E	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
		0-16	GR/SL	FR/SEXP/NS	N/A	N/A	N/A	N/A	PS/0.4
1	Slope/3%	20-36	SBK/SCL	FI/SEXP/SS					
	Linear	0-20	GR/SL	FR/SEXP/NS	N/A	N/A	N/A	N/A	PS/0.4
2	Slope/3%	20-36	SBK/SCL	FI/SEXP/SS					
	Linear Slope/3%	0-14	GR/SL	FR/SEXP/NS	34"	N/A	N/A	N/A	PS/0.4
		14-36	SBK/CL	FI/SEXP/SS					
3									
	Linear Slope/3%	0-14	GR/SL	FR/SEXP/NS	28"	N/A	N/A	N/A	PS/0.35
		14-36	SBK/CL	FI/SEXP/SS					
		14-30	SDN/CL	LI/SEAL/SS					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	OTHER FACTORS (.1946):
Available Space (.1945)	>5,000 ft <sup>2</sup>	>5,000 ft <sup>2</sup>	SITE CLASSIFICATION (.1948): PS
System Type(s)	Type III (b)	Type III (b)	EVALUATED BY:A. Adams OTHER(S) PRESENT:
Site LTAR	0.35	0.35	

COMMENTS:

Updated February 2014

